

## FEATURES

- 30A switching capability
- 1Form A and 1 Form C contact arrangement
- Parallel resistor or diode available
- Dust protected type and wash tight type available
- Comply with RoHS and ELV instruction



## APPLICATION

ABS Control System, Fan  
 Door Control System  
 Door Lock, Fuel Pump  
 Heated Front, Back Window Glass

## COIL PARAMETER

Coil voltage	12VDC/24VDC	
Coil power	CHAA-D	1.2W
	CHAA-D1	1.2W
	CHAA-D2	1.2W
	CHAA-R	1.4W

## COIL DATA @23°C

CHAA-D/CHAA-D1/CHAA-D2						
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance ( $\Omega \pm 10\%$ )	Parallel Resistance ( $\Omega \pm 5\%$ )	Equivalent Resistance ( $\Omega$ )	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
12	100	120	—	—	7.2	1.2
24	50	480	—	—	14.4	2.4

CHAA-R						
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance ( $\Omega \pm 10\%$ )	Parallel Resistance ( $\Omega \pm 5\%$ )	Equivalent Resistance ( $\Omega$ )	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
12	118	120	680	102	7.2	1.2
24	59	480	2700	408	14.4	2.4

## CONTACT DATA

Contact arrangement	1 Form A, 1 Form C
Contact material	Silver Alloy
Initial contact resistance	NO: 15mV Type, 250mV Max (at 10A)
	NC: 25mV Type, 250mV Max (at 10A)
Max. switching voltage	14VDC
Max. switching current	30A
Max. switching power	420W
Contact rating (Resistive Load)	NO: 30A 14VDC
	NC: 20A 14VDC
Mechanical endurance	10,000,000 ops Min.(no load)
Electrical endurance	100,000 ops Min.(rated load)
Minimum load (reference value)	1A@6VDC

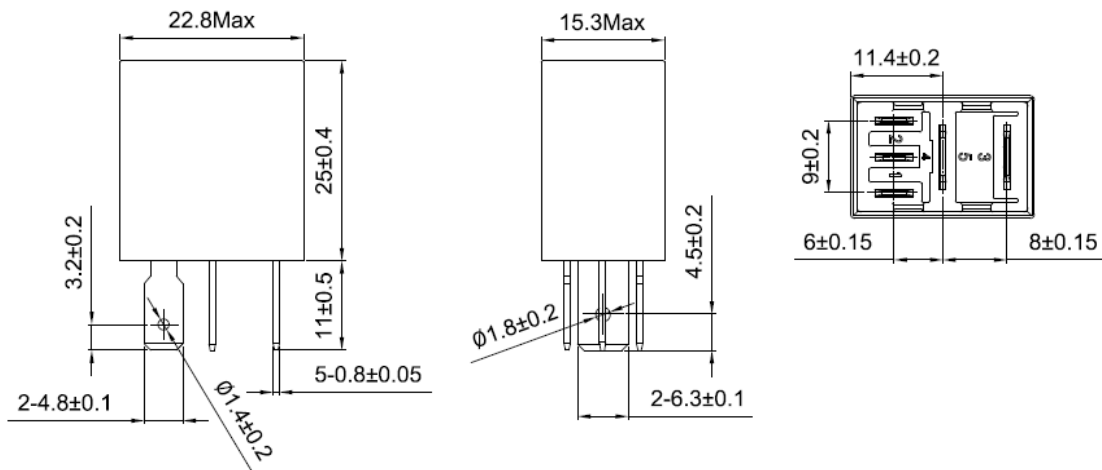
## CHARACTERISTIC

Operate voltage	60% of nominal voltage or less	
Release voltage	10% of nominal voltage or more	
Operate time(At nominal voltage)	10ms max.	
Release time(At nominal voltage)	10ms max.	
Insulation resistance	100M $\Omega$ min. (at 500 VDC)	
Dielectric strength	Between coil and contacts $\geq 500$ VAC, 50/60Hz ( 1 min)	
	Between open contacts $\geq 500$ VAC, 50/60Hz ( 1 min)	
Vibration resistance	Destruction	60Hz~ 500Hz, 49m/s <sup>2</sup> (5G)
	Malfunction	10Hz~ 60Hz, 0.35mm double amplitude
Shock resistance	Destruction	1,000m/s <sup>2</sup> (100G)
	Malfunction	200m/s <sup>2</sup> (20G)
Ambient temperature	-40~ +125°C (without icing or condensation)	
Ambient humidity	20%~85% RH	
Terminal	QC terminals	
Enclosure (94V-0 Flammability Ratings)	V: Vented(Dust-protected, RTI)	
	S: Sealed(Wash-tight, RTIII)	
Weight	Approx. 18g	

## ORDERING

	CHAA	-V	-1	12	D	A	2	,000
1.Product Family	CHAA series							
2.Enclosure	V: Vented(Dust-protected, RTI) S: Sealed(Wash-tight, RTIII)							
3.Number of Poles	1: 1 pole							
4.Rated Coil Voltage	12,24VDC							
5.Parallel component	D: Without parallel component R: With resistor D1: With parallel diode(Anode on 1#) D2: With parallel diode(Anode on 2#)							
6.Contact Arrangement	A: Form A(SPST) C: Form C(SPDT)							
7.Conact Material	2: AgSnO2							
9.Additional numbers and /or letters	000-999, AAA-ZZZ, aaa-zzz or blank, which does not represent electrical changes, only for specific customer requirements							

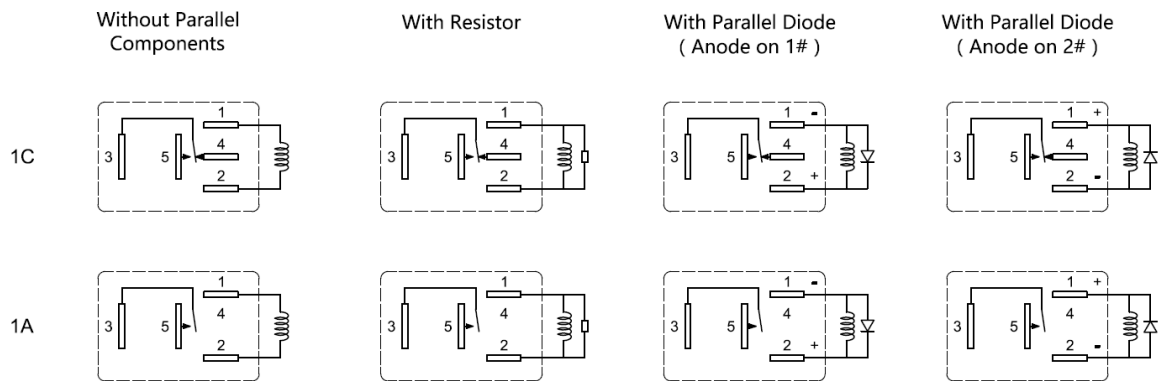
## OUTLINE DIMENSION



### Remarks:

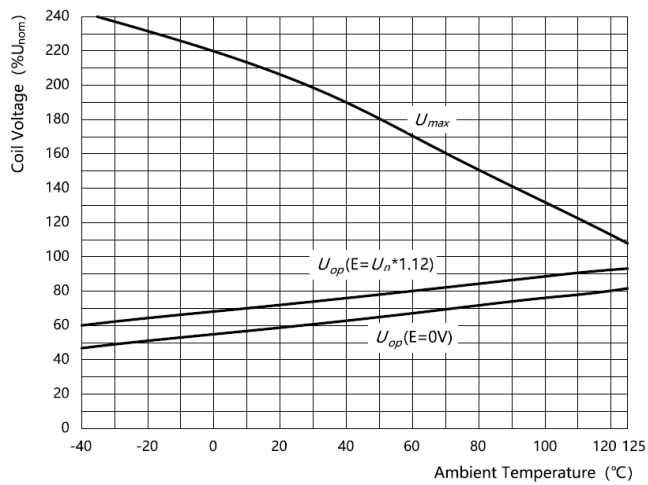
- The reference tolerance in outline dimension:
  - outline dimension  $\leq 1$ mm, reference tolerance is  $\pm 0.2$ mm;
  - outline dimension  $> 1$ mm and  $\leq 5$ mm, reference tolerance is  $\pm 0.3$ mm;
  - outline dimension  $> 5$ mm, reference tolerance is  $\pm 0.5$ mm.
- The reference tolerance for PC Board layout is  $\pm 0.1$ mm.

## WIRING DIAGRAMS (BOTTOM VIEWS)

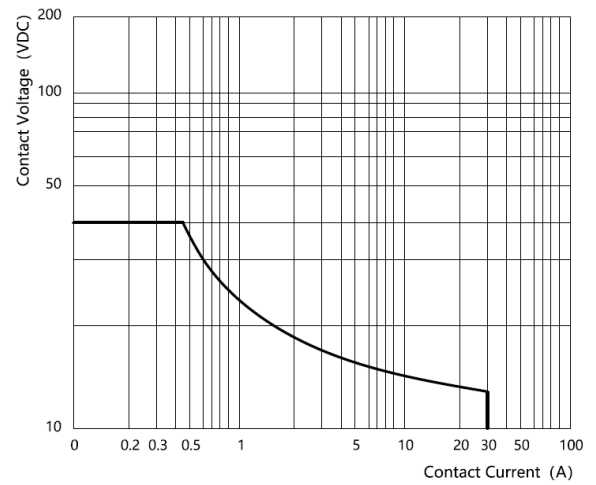


## Reference Data

Coil Continuous Voltage Range



Maximum Load Range



Disclaimer:

The specification is for reference only, if you need more detail information, please contact Churod. We could not evaluate all the performance and all parameters for every possible application. And the user should be in a right position to choose the suitable product for their own application. If there is any new need, please contact Churod for the technical service.

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